APPENDIX E: THERMOMETER TEMPERATURE CALIBRATION QUALITY ASSURANCE PROGRAM DNA TYPING OF BIOLOGICAL MATERIALS - FORENSIC BIOLOGY SECTION PROCEDURE MANUAL, SECTION VI Effective Date: 11-January-2005

APPENDIX E: THERMOMETER TEMPERATURE CALIBRATION

Thermometers will be verified upon receipt for accuracy at the temperature of intended use. If available, a thermometer certified by the National Institute of Standards and Technology (NIST) should be used for comparison. However, a thermometer that is traceable to a NIST thermometer may also be used.

- 1. Tag each thermometer with an identifying number.
- 2. Place all of the thermometers in a vessel containing water at a temperature approximately 4°C below the temperature of intended use. For the temperature range 1-6°C, add salt and ice to the water to bring the temperature below 0°C.
- 3. Record the temperature shown on each thermometer.
- 4. Next warm water to approximately 4°C above the temperature of intended use.
- 5. Place thermometers into the warmed water and record the temperature of each thermometer.
- 6. All thermometers should be within $\pm 1^{0}$ C of the NIST thermometer or a thermometer traceable to a NIST thermometer. Any thermometer that varies more than $\pm 1^{0}$ C in the range of intended use will not be used.

NOTE: If a thermometer is not acceptable at a specified temperature range (e.g., 37°C, 56°C, or 95°C) this does not preclude the thermometer from being used at another temperature providing it has passed the quality control test.

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